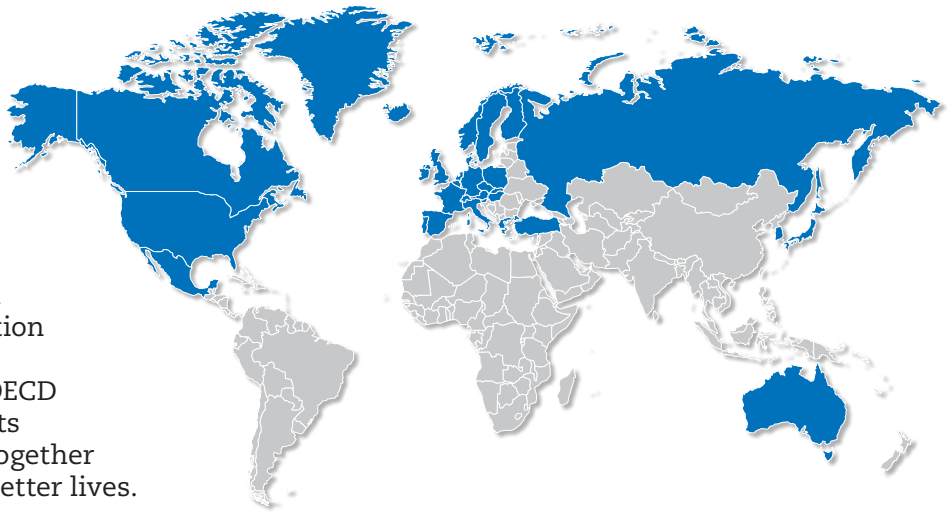
The OECD Nuclear Energy Agency

OECD
BETTER POLICIES FOR BETTER LIVES

NEA
NUCLEAR ENERGY AGENCY

The NEA



The Nuclear Energy Agency (NEA) is a specialised agency within the Organisation for Economic Co-operation and Development (OECD), an intergovernmental organisation of industrialised countries, based in Paris, France. The OECD is a unique forum in which its 35 member countries work together to create better policies for better lives.

The objective of the NEA is to assist its member countries in maintaining and further developing, through international co-operation, the scientific, technological and legal bases required for a safe, environmentally sound and economical use of nuclear energy for peaceful purposes. It provides authoritative assessments and forges common understandings on key issues as input to government decisions on nuclear energy policy and to broader OECD analyses in areas such as energy and the sustainable development of low-carbon economies.

The NEA co-operates with a range of multilateral organisations, including the European Commission and the International Atomic Energy Agency.

NEA member countries

(as of June 2017)

Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, Norway, Poland, Portugal, Russia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States

Strategic partners

China, India

NEA strengths

The NEA is the only intergovernmental organisation which brings together a selection of countries from North America, Europe and the Asia-Pacific region in a small, non-political forum dedicated to sharing and disseminating the state of the art in the field of nuclear energy.

- NEA membership represents much of the **world's best nuclear expertise**.
- By pooling this expertise, the NEA provides each member country access to the substantial experience of others and an opportunity to **significantly leverage its resources**.
- **Homogeneity** of NEA membership makes possible a like-minded approach to problems, a climate of mutual trust and collaboration, a full exchange of experience and a frank assessment of issues.
- NEA scientific and technical work is **at the forefront of knowledge** and is known for its depth.
- The NEA publishes consensus positions on key issues, providing member countries with **credible references** and examples of **best practice**.
- The NEA is **cost-effective**. It operates with a small staff, relying on member country experts, and provides significant added value.
- The NEA system of standing technical committees enables the Agency to be **flexible and responsive**.
- NEA joint projects and information exchange programmes allow interested members and non-members to **join forces** in carrying out research or scientific intercomparison exercises on a cost-sharing basis.
- The NEA, as part of a larger multi-disciplinary organisation, is **uniquely placed** to address nuclear energy in the context of broader cross-cutting issues such as green growth and security of energy supply.

NEA basic facts and figures

Governing body: **the Steering Committee for Nuclear Energy**

31	member countries (25 participating in the Data Bank)
59	years of international service
7	standing technical committees and 1 management board
74	working parties and expert groups
21	international joint projects funded by participants
116	staff (official and voluntary contribution posts, NEA and Data Bank combined)
€ 11.2	million budget for the NEA in 2017, supplemented by voluntary contributions
€ 3.2	million budget for the Data Bank in 2017, supplemented by voluntary contributions
30	publications produced per year on average

NEA Management Structure

William D. Magwood, IV
NEA Director-General

Daniel Iracane
Deputy Director-General and Chief Nuclear Officer

Masahiko Fujihara
Deputy Director-General for Legal Affairs and Strategic Resources

Ximena Vásquez-Maignan
Head of the Office of Legal Counsel

Ricardo Lopez
Head of the Office of Administration

Vacant post

Chief of Cabinet, Head of the Central Secretariat, External Relations and Public Affairs

Ho Nieh
Head of the Division of Nuclear Safety Technology and Regulation

Yeonhee Hah
Head of the Division of Radiological Protection and Human Aspects of Nuclear Safety

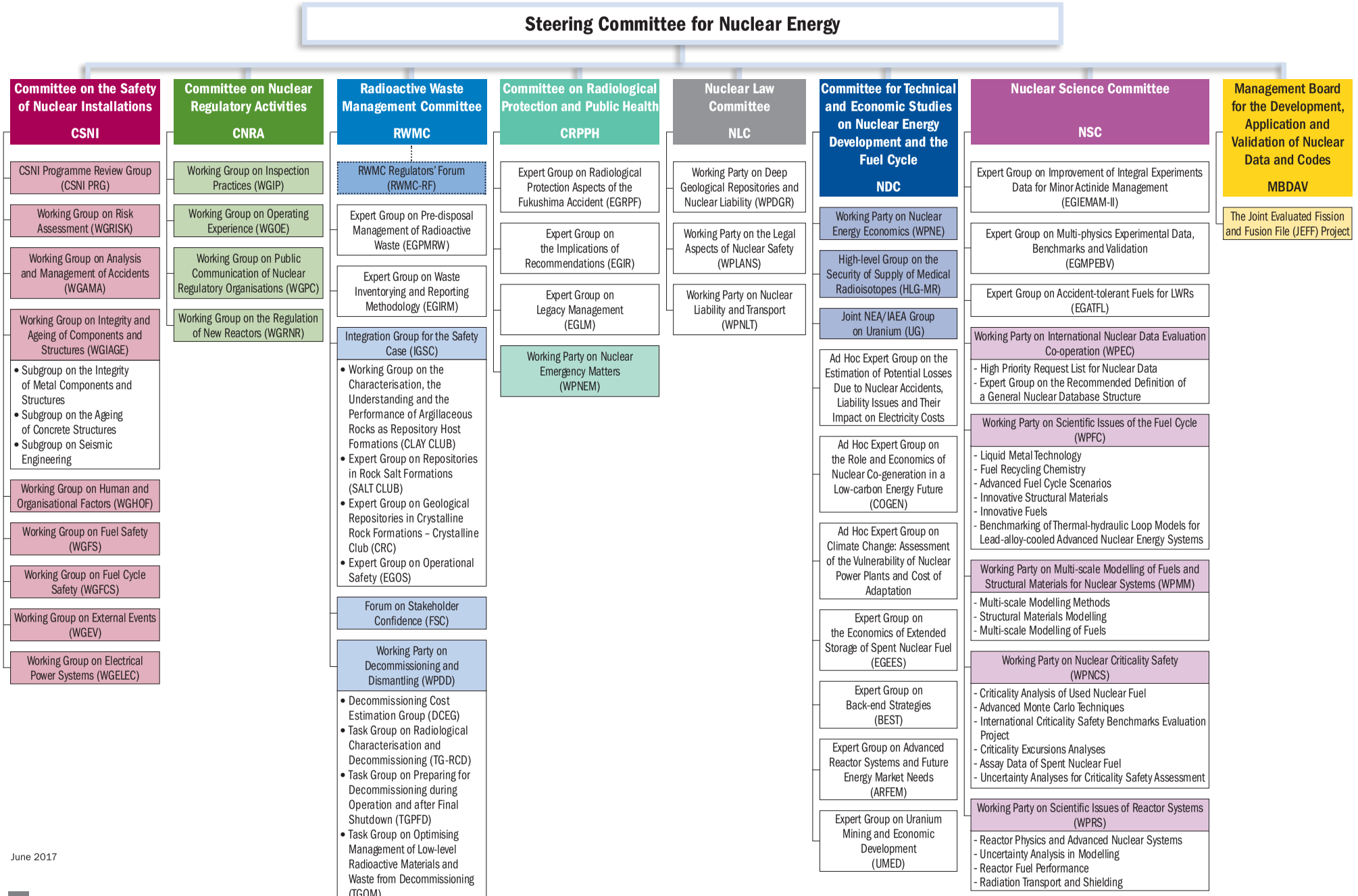
Gloria Kwong
(as from 10 June 2017) Acting Head of the Division of Radioactive Waste Management

Tatiana Ivanova
Head of the Division of Nuclear Science

Jim Gulliford
Head of the Data Bank

Henri Paillère
Acting Head of the Division of Nuclear Development

Organisational Structure of the OECD Nuclear Energy Agency (NEA)


Steering Committee for Nuclear Energy
Committee on the Safety of Nuclear Installations
CSNI
CSNI Programme Review Group (CSNI PRG)
Working Group on Risk Assessment (WGRISK)
Working Group on Analysis and Management of Accidents (WGAMA)
Working Group on Integrity and Ageing of Components and Structures (WGIAGE)
• Subgroup on the Integrity of Metal Components and Structures
• Subgroup on the Ageing of Concrete Structures
• Subgroup on Seismic Engineering
Working Group on Human and Organisational Factors (WGHOF)
Working Group on Fuel Safety (WGFS)
Working Group on Fuel Cycle Safety (WGFCS)
Working Group on External Events (WGEV)
Working Group on Electrical Power Systems (WGELEC)
Committee on Nuclear Regulatory Activities
CNRA
Working Group on Inspection Practices (WGIP)
Working Group on Operating Experience (WGOE)
Working Group on Public Communication of Nuclear Regulatory Organisations (WGPC)
Working Group on the Regulation of New Reactors (WGRNR)
Radioactive Waste Management Committee
RWMC
RWMC Regulators' Forum (RWMC-RF)
Expert Group on Pre-disposal Management of Radioactive Waste (EGPMRW)
Expert Group on Waste Inventorying and Reporting Methodology (EGIRM)
Integration Group for the Safety Case (IGSC)
• Working Group on the Characterisation, the Understanding and the Performance of Argillaceous Rocks as Repository Host Formations (CLAY CLUB)
• Expert Group on Repositories in Rock Salt Formations (SALT CLUB)
• Expert Group on Geological Repositories in Crystalline Rock Formations – Crystalline Club (CRC)
• Expert Group on Operational Safety (EGOS)
Forum on Stakeholder Confidence (FSC)
Working Party on Decommissioning and Dismantling (WPDD)
• Decommissioning Cost Estimation Group (DCEG)
• Task Group on Radiological Characterisation and Decommissioning (TG-RCD)
• Task Group on Preparing for Decommissioning during Operation and after Final Shutdown (TGPFD)
• Task Group on Optimising Management of Low-level Radioactive Materials and Waste from Decommissioning (TGOM)
Committee on Radiological Protection and Public Health
CRPPH
Expert Group on Radiological Protection Aspects of the Fukushima Accident (EGRPF)
Expert Group on the Implications of Recommendations (EGIR)
Expert Group on Legacy Management (EGLM)
Working Party on Nuclear Emergency Matters (WPNEM)
Nuclear Law Committee
NLC
Working Party on Deep Geological Repositories and Nuclear Liability (WPDGR)
Working Party on the Legal Aspects of Nuclear Safety (WPLANS)
Working Party on Nuclear Liability and Transport (WPNLT)
Committee for Technical and Economic Studies on Nuclear Energy Development and the Fuel Cycle
NDC
Working Party on Nuclear Energy Economics (WPNE)
High-level Group on the Security of Supply of Medical Radioisotopes (HLG-MR)
Joint NEA/IAEA Group on Uranium (UG)
Ad Hoc Expert Group on the Estimation of Potential Losses Due to Nuclear Accidents, Liability Issues and Their Impact on Electricity Costs
Ad Hoc Expert Group on the Role and Economics of Nuclear Co-generation in a Low-carbon Energy Future (COGEN)
Ad Hoc Expert Group on Climate Change: Assessment of the Vulnerability of Nuclear Power Plants and Cost of Adaptation
Expert Group on the Economics of Extended Storage of Spent Nuclear Fuel (EGEES)
Expert Group on Back-end Strategies (BEST)
Expert Group on Advanced Reactor Systems and Future Energy Market Needs (ARFEM)
Expert Group on Uranium Mining and Economic Development (UMED)
Nuclear Science Committee
NSC
Expert Group on Improvement of Integral Experiments Data for Minor Actinide Management (EGIEMAM-II)
Expert Group on Multi-physics Experimental Data, Benchmarks and Validation (EGMPEBV)
Expert Group on Accident-tolerant Fuels for LWRs (EGATFL)
Working Party on International Nuclear Data Evaluation Co-operation (WPEC)
- High Priority Request List for Nuclear Data
- Expert Group on the Recommended Definition of a General Nuclear Database Structure
Working Party on Scientific Issues of the Fuel Cycle (WPFC)
- Liquid Metal Technology
- Fuel Recycling Chemistry
- Advanced Fuel Cycle Scenarios
- Innovative Structural Materials
- Innovative Fuels
- Benchmarking of Thermal-hydraulic Loop Models for Lead-alloy-cooled Advanced Nuclear Energy Systems
Working Party on Multi-scale Modelling of Fuels and Structural Materials for Nuclear Systems (WPMM)
- Multi-scale Modelling Methods
- Structural Materials Modelling
- Multi-scale Modelling of Fuels
Working Party on Nuclear Criticality Safety (WPNCS)
- Criticality Analysis of Used Nuclear Fuel
- Advanced Monte Carlo Techniques
- International Criticality Safety Benchmarks Evaluation Project
- Criticality Excursions Analyses
- Assay Data of Spent Nuclear Fuel
- Uncertainty Analyses for Criticality Safety Assessment
Working Party on Scientific Issues of Reactor Systems (WPRS)
- Reactor Physics and Advanced Nuclear Systems
- Uncertainty Analysis in Modelling
- Reactor Fuel Performance
- Radiation Transport and Shielding
Management Board for the Development, Application and Validation of Nuclear Data and Codes
MBDAV
The Joint Evaluated Fission and Fusion File (JEFF) Project

June 2017

NEA joint projects

NEA joint projects and information exchange programmes enable interested countries, on a cost-sharing basis, to pursue research or the sharing of data with respect to particular areas or issues in the nuclear energy field. The projects are carried out under the auspices, and with the support, of the NEA. All NEA joint projects currently under way are listed below.

At present, 17 joint projects are being conducted or completed in relation to nuclear safety, one in the area of nuclear science (advanced fuels), two in support of radioactive waste management and one in the field of radiological protection. These projects complement the NEA programme of work and contribute to achieving excellence in each area of research.

Nuclear safety research

Advanced Thermal-hydraulic Test Loop for Accident Simulation (ATLAS) Project
Previous mandate: April 2014-March 2017
New mandate under discussion

Behaviour of Iodine Project (BIP)
Current mandate: January 2016-December 2018

Benchmark Study of the Accident at the Fukushima Daiichi Nuclear Power Plant (BSAF)
Current mandate: April 2015-March 2018

Cabri International Project (CIP)
Current mandate: January 2016-March 2018

Fire Propagation in Elementary, Multi-room Scenarios (PRISME) Project
Previous mandate: July 2011-December 2016
New mandate under discussion

Halden Reactor Project
Current mandate: January 2015-December 2017

High Energy Arcing Fault Events (HEAF) Project
Previous mandate: July 2012-March 2017
New mandate under discussion

Hydrogen Mitigation Experiments for Reactor Safety (HYMERES) Project
Previous mandate: January 2013-December 2016
New mandate under discussion

Loss of Forced Coolant (LOFC) Project
Current mandate: March 2016-March 2019

Primary Coolant Loop Test Facility (PKL) Project
Current mandate: April 2016-July 2020

Source Term Evaluation and Mitigation (STEM) Project
Current mandate: January 2016-December 2019

Studsvik Cladding Integrity Project (SCIP)
Current mandate: July 2014-June 2019

Thermal-hydraulics, Hydrogen, Aerosols, Iodine (THAI) Project
Current mandate: February 2016-July 2019

Nuclear safety databases

Cable Ageing Data and Knowledge (CADAK) Project
Current mandate: January 2015-December 2017

Component Operational Experience, Degradation and Ageing Programme (CODAP)
Current mandate: February 2015-December 2017

Fire Incidents Records Exchange (FIRE) Project
Current mandate: January 2016-December 2019

International Common-cause Failure Data Exchange (ICDE) Project
Current mandate: January 2015-December 2018

Nuclear science

Thermodynamics of Advanced Fuels – International Database (TAF-ID) Project
Current mandate: January 2013-December 2017

Radioactive waste management

Co-operative Programme on Decommissioning (CPD)
Current mandate: January 2014-December 2018

Thermochemical Database (TDB) Project
Current mandate: April 2014-March 2018

Radiological protection

Information System on Occupational Exposure (ISOE)
Current mandate: January 2016-December 2019

NEA-serviced bodies

Multinational Design Evaluation Programme (MDEP)

MDEP is a unique multinational initiative being conducted by the nuclear regulators of Canada, China, Finland, France, Hungary, India, Japan, Korea, Russia, South Africa, Sweden, Turkey, the United Arab Emirates, the United Kingdom and the United States in order to co-operate on safety design reviews of new reactors and to identify opportunities for harmonisation and convergence of safety licensing review practices and requirements. The International Atomic Energy Agency (IAEA) participates in many of the MDEP activities. MDEP currently includes five design-specific working groups (EPR, AP1000, APR1400, VVER and ABWR) and three issue-specific working groups. See www.oecd-nea.org/mdep for further details.

Generation IV International Forum (GIF)

The Generation IV International Forum (GIF) is a co-operative international endeavour organised to carry out the research and development (R&D) needed to establish the feasibility and performance capabilities of the next generation of nuclear energy systems.

The Generation IV International Forum has 14 members which are signatories of its founding document, the GIF Charter. Argentina, Brazil, Canada, France, Japan, Korea, South Africa, the United Kingdom and the United States signed the GIF Charter in July 2001. Subsequently, it was signed by Switzerland in 2002, Euratom in 2003, China and Russia in 2006, and Australia in 2016.

After a thorough review of roughly 100 concepts in 2002, GIF members selected six systems for further R&D: the gas-cooled fast reactor (GFR), the lead-cooled fast reactor (LFR), the molten salt reactor (MSR), the sodium-cooled fast reactor (SFR), the supercritical-water-cooled reactor (SCWR) and the very-high-temperature reactor (VHTR). Detailed information on these systems can be found in the *Technology Roadmap Update for Generation IV Nuclear Energy Systems* (2014) available on the GIF website (www.gen-4.org).

On 26 February 2015, the Framework Agreement for International Collaboration on Research and Development of Generation IV Nuclear Energy Systems was extended for another ten years, thereby paving the way for continued collaboration among participating countries.

International Framework for Nuclear Energy Cooperation (IFNEC)

The International Framework for Nuclear Energy Cooperation provides a forum for co-operation among participating countries to explore mutually beneficial approaches to ensure that the use of nuclear energy for peaceful purposes proceeds in a manner that is efficient and meets the highest standards of safety, security and non-proliferation. Member countries do not give up any rights and voluntarily engage to share the effort and gain the benefits of the economical and peaceful use of nuclear energy.

IFNEC membership includes 34 participant countries, 31 observer countries and 4 international observer organisations (the Nuclear Energy Agency, the International Atomic Energy Agency, the Generation IV International Forum and Euratom). There are currently two IFNEC working groups: the Infrastructure Development Working Group (IDWG) and the Reliable Nuclear Fuel Services Working Group (RNFSWG), as well as an Ad Hoc Nuclear Suppliers and Customer Countries Engagement Group. Further information is available at www.ifnec.org.

NEA publications and information

All NEA publications are available free online at www.oecd-nea.org/pub.

Selection of NEA titles

Communication on the Safety Case for a Deep Geological Repository
NEA No. 7336. 87 pages.

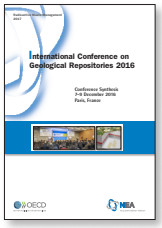
Financing the Decommissioning of Nuclear Facilities
NEA No. 7326. 20 pages.

Five Years after the Fukushima Daiichi Accident: Nuclear Safety Improvements and Lessons Learnt
NEA No. 7284. 76 pages.

Executive summary available in English and Japanese.

Impacts of the Fukushima Daiichi Accident on Nuclear Development Policies
NEA No. 7212. 68 pages.

Implementation of Defence in Depth at Nuclear Power Plants
Lessons Learnt from the Fukushima Daiichi Accident
NEA No. 7248. 44 pages.



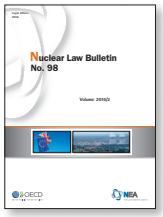
International Conference on Geological Repositories 2016
Conference Synthesis
NEA No. 7345. 40 pages.

NEA News
Two issues per year.

Nuclear Energy: Combating Climate Change
NEA No. 7208. Brochure. 16 pages.

Nuclear Energy Data / Données sur l'énergie nucléaire – 2016
NEA No. 7300. 111 pages.

Nuclear Law Bulletin
Two issues per year.



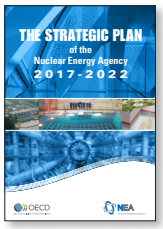
Projected Costs of Generating Electricity – 2015 Edition
NEA No. 7057. 212 pages.

Radiological Protection Science and Application
NEA No. 7265. 114 pages.

Small Modular Reactors: Nuclear Energy Market Potential for Near-term Deployment
NEA No. 7213. 72 pages.

The Characteristics of an Effective Nuclear Regulator
NEA No. 7185. 32 pages.

The Safety Culture of an Effective Nuclear Regulatory Body
NEA No. 7247. 32 pages.



The Strategic Plan of the Nuclear Energy Agency 2017-2022
40 pages.

Also available in French.

Uranium 2016: Resources, Production and Demand
NEA No. 7301. 550 pages.

Internet-based communication

In addition to basic information on the Agency and its work programme, the NEA website offers free downloads of hundreds of technical and policy-oriented reports. An NEA monthly electronic bulletin is also distributed free of charge to subscribers, providing updates of new results, events and publications. Sign up at www.oecd-nea.org/bulletin. Visit us on Facebook at www.facebook.com/OECDNuclearEnergyAgency or follow us on Twitter @OECD_NEA.

For more information on NEA publications

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OECD/NEA, June 2017